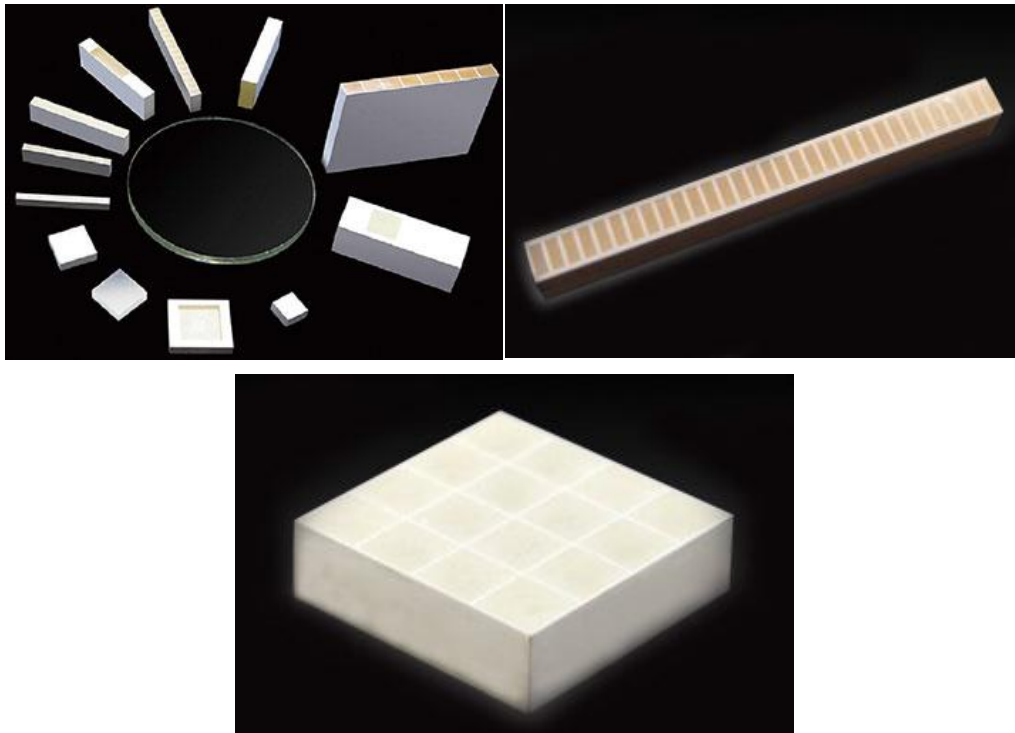


CdWO₄ Arrays

CdWO₄ arrays has wide applications, its extremely low afterglow property is of great importance of fast inspection, especially in the cargo container of customs, while in the X-CT equipment due to its relatively high light output, high density and strong prevention of X-ray property, also in the high energy physics because of its strong anti-radiation.



Modules or types

Single element size: customized

Linear array: 8, 16, 32, 64...elements

2-Dimensional array: 6×10, 12×18, 24×36...elements

Light output: 12,000-15,000 Photons/Mev

Afterglow: 0.1%(max) after 3ms

Reflector: polymer with TiO₂(excellent reflection to ensure minimized cross talk)

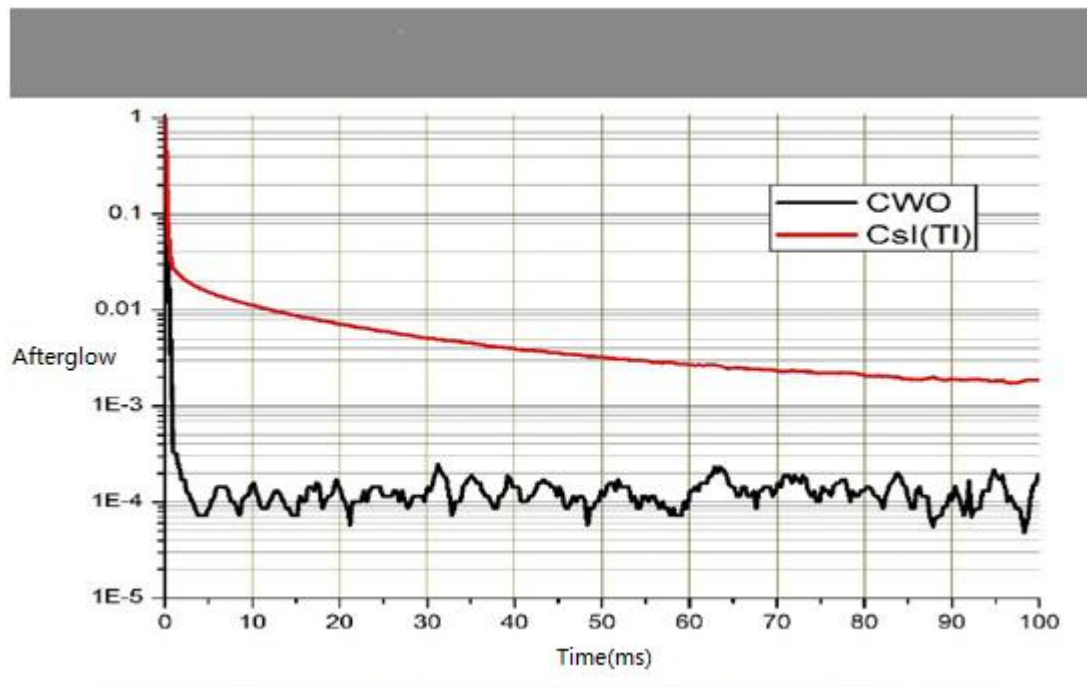
Application Notes

- Security inspection
- X-ray CT
- High energy physics
- Nuclear medicine

Basic Properties

| Basic Properties | |
|---|-------------|
| Melting Point (°C) | 1598 |
| Density (g/cm ³) | 7.9 |
| Hygroscopic | None |
| Hardness (ns) | 4~4.5 |
| Wavelength of emission max. (nm) | 475 |
| Refractive index @ emission max | 2.2~2.3 |
| Decay time (ns) | 14000 |
| Light yield (photons/MeV) | 12000~15000 |
| Photoelectron yield (% of NaI(Tl)) (for γ-rays) | 30~50 |
| Afterglow(%@3ms) | <0.1 |
| Radiation length(cm) | 1.06 |

The after-glow of CdWO₄ and CsI(Tl)



Features

- Low after-glow
- High density, high Z scintillator
- Relatively high light yield
- Withstands high energy radiation damage
- Suitable for low activity counting application